

DERWENT-ACC-NO: 1976-25587X

DERWENT-WEEK: 197614

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TITLE: Nickel based alloys for turbine  
blades prodn. - having  
high strength and corrosion- and  
acid-resistance etc. at  
low and high temps.

PATENT-ASSIGNEE: MITSUBISHI HEAVY IND CO LTD [MITO]

PRIORITY-DATA: 1974JP-0093217 (August 16, 1974)

PATENT-FAMILY:

PUB-NO	PUB-DATE	
LANGUAGE	PAGES	MAIN-IPC
JP 51021507 A		February 20, 1976
000 N/A		N/A
JP 81003419 B		January 24, 1981
000 N/A		N/A

INT-CL (IPC): B22F001/00, B22F003/00 , B22F005/04 ,  
C22C001/05 ,  
C23C009/00

ABSTRACTED-PUB-NO: JP 51021507A

BASIC-ABSTRACT:

The alloys are prep'd. by mixing a Ni-alloy powder contg. Ti and/or Al with a Ni-Al<sub>2</sub>O<sub>3</sub> alloy powder (obtd. by oxidising and reducing a Ni-Al alloy powder) ; compression moulding the mixt.; sintering at a temp. at which the Ni-Al<sub>2</sub>O<sub>3</sub> powder is present in the liq. phase; working at high temp.; working in plastic state and cutting. The alloys have high strength and corrosion- and acid-resistance etc. at low- and high temps. i.e. up to 1200 degrees C. Diffusion-resistance etc. at low- and high temps., i.e. up to 1200 degrees C.

Diffusion-penetration of Cr is produced on the surface of  
the prod.

TITLE-TERMS: NICKEL BASED ALLOY TURBINE BLADE PRODUCE HIGH  
STRENGTH CORROSION

ACID RESISTANCE LOW HIGH TEMPERATURE

DERWENT-CLASS: M22 P53

CPI-CODES: M22-H03F; M26-A02; M26-B08;